

Regional Water Quality Control Board  
Central Valley Region  
Board Meeting – 21/22 September 2006

Response to Written Comments for Linda County Wastewater Treatment Plant  
Proposed Time Schedule Order and Tentative Waste Discharge Requirements

The following are responses to written comments received from interested parties in response to the proposed Time Schedule Order and Tentative Waste Discharge Requirements (NPDES No. CA0079651) for the Linda County Wastewater Treatment Plant issued on 15 June 2006. Written comments from interested parties on the 15 June 2006 proposed Orders were required to be received by the Regional Water Quality Control Board (Regional Water Board) by 21 July 2006 in order to receive full consideration. Comments were received by the due date from the following parties:

1. Linda County Water District
2. California Sportfishing Protection Alliance

Written comments from the above interested parties are summarized below, followed by the response of the Regional Water Board staff.

To reflect changes requested by the Discharger, a subsequent proposed Time Schedule Order and Tentative Waste Discharge Requirements for the Linda County Wastewater Treatment Plant was issued on 3 August 2006. The due date for written comments on the 3 August 2006 proposed Orders is 8 September 2006. The following comments and responses are those submitted regarding the proposed Orders issued on 15 June 2006.

**LINDA COUNTY WATER DISTRICT (LCWD) COMMENTS**

**LCWD –COMMENT #1.** The proposed Order compliance schedule dates should be updated to reflect the date of the Board meeting. LCWD requests that the proposed Order's effective date be set to three months after adoption.

**RESPONSE**

The proposed Order compliance schedules have been updated and the proposed Order's effective date has been set to fifty days after the adoption date.

**LCWD –COMMENT #2.** LCWD requests reduced monitoring frequency prior to the upgrade to tertiary treatment.

**RESPONSE**

The proposed Order has been revised to require an lower interim monitoring frequency reflective of secondary treatment prior to the requirement to upgrade to tertiary.

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**LCWD –COMMENT #3.** LCWD requests that seasonal ammonia limits be based on a pH of 8.0.

**RESPONSE**

The proposed Order has been revised to base seasonal ammonia limitations on a pH of 8.0. The maximum pH effluent limitation has been lowered to 8.0 to reflect this change.

**LCWD –COMMENT #4.** LCWD requests that compliance with the mercury limitation be monitored and reported on a calendar year annual basis.

**RESPONSE**

The proposed Order contains a total mercury mass limitation based on a monthly average. To maintain consistency with other NPDES permits adopted by the Regional Board, the mercury mass limitation in the proposed Order and the corresponding proposed compliance determination will remain unchanged.

**LCWD –COMMENT #5.** The LCWD requests that the pH limitation for the ponds require that the plant effluent maintain a pH between 6.5 and 8.5 when discharged to the disposal ponds, instead of the pH limitation be within the ponds.

**RESPONSE**

State Water Resources Control Board Water Quality Order (WQO) No. 2004-0013, states, in part:

...the land discharge specification should be for discharges "into" the ponds rather than for pH in the ponds. The limitation is based on the pH water quality objective, but the ponds discharge only during inundation, at which times the receiving water limitation for pH would be protective.

In accordance with WQO No. 2004-0013, this permit does not include a pH limitation within the ponds. Instead, this permit requires the effluent discharged into the ponds to be within the range of 6.5 to 8.0 pH units.

**LCWD –COMMENT #6.** The LCWD requests the ammonia groundwater limitation be removed.

**RESPONSE**

Ammonia limitations are established to protect against toxicity that threatens aquatic life in a waterbody. The groundwater underneath the ponds has the

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designated beneficial use of Municipal and Domestic use (MUN and DOM), but does not have the designated use of aquatic life. Therefore, the ammonia groundwater limitation in the proposed Order has been removed.

**LCWD –COMMENT #7.** The LCWD requests the removal of priority pollutant groundwater monitoring for constituents that have drinking water MCLs or other criteria defined in the Basin Plan for groundwater.

**RESPONSE**

The groundwater underneath the ponds has the designated beneficial use of Municipal and Domestic use (MUN and DOM), but does not have the designated use of aquatic life. Therefore, the requirement to monitor priority pollutants in the groundwater has been replaced with a requirement to monitor standard minerals and Title 22 constituents.

**LCWD –COMMENT #8.** The provision requiring a California Toxic Rule (CTR) Compliance Schedule Justification Study should be deleted since the study has already been submitted and deemed complete.

**RESPONSE**

LCWD has submitted a CTR Compliance Schedule Justification Study; therefore, the provision requiring a CTR Compliance Schedule Justification Study has been removed from the proposed Order.

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**CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS**

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**CSPA –COMMENT #1:** The receiving waters are habitat for listed species and require the most stringent protection.

**RESPONSE**

The proposed Order requires the Discharger to treat the wastewater to a tertiary level that meets the recycling criteria of the California Code of Regulations (CCR) Title 22, and to a level protective of aquatic life beneficial uses of surface waters without dilution. The proposed Order establishes effluent limitations, in accordance with the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP), to be protective of the aquatic life beneficial uses of the Feather River.

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**CSPA –COMMENT #2:** The proposed permit does not comply with the CTR or SIP which prohibits compliance schedules for new or recommencing dischargers and does not provide for compliance schedules after 18 May 2005.

**RESPONSE**

The Discharger is an existing discharger because it has an existing NPDES Order under which it has discharged to the Feather River. The Discharger's direct outfall to the Feather River has not been used for many years, but its disposal ponds have intermittently discharged effluent to the Feather River (as allowed in the existing Order) during flooding as recent as 2006. The existing Order (Waste Discharge Requirements Order No. 5-00-165) prohibits the discharge of wastewater at a location or in a manner different from that described in Finding No. 2. Finding No. 2 of the existing Order specifically states that direct discharge exists into the Feather River during flooding; therefore this discharge is allowed by the existing NPDES permit.

The SIP is the governing policy in California for implementing the CTR and it allows compliance schedules. USEPA approved the section of the SIP concerning compliance schedules. Although the CTR provisions for compliance schedules expired, that does not preclude the State Water Board from establishing its own version of compliance schedules since the SIP is intended to implement the CTR. The SIP allows compliance schedules that are as short as practicable, but in no case (1) allows more than 5 years for a discharger to come into compliance with CTR-based effluent limitations, and (2) allows the compliance schedule to extend beyond 10 years from the effective date of the SIP (18 May 2000) to establish and comply with CTR-based effluent limitations. The proposed Order, therefore, includes a time schedule of less than four years to comply with CTR-based effluent limitations by 18 May 2010 (10 years from the SIP effective date).

**CSPA –COMMENT #3.** Any granting of assimilative capacity for conservative constituents like salt should wait until cumulative basin-wide assessments can be conducted.

**RESPONSE**

The proposed Order contains a reopener provision that states upon the Regional Water Board's redistribution of Electrical Conductivity (EC) allocation for discharges to the Feather River, the proposed Order may be reopened and the EC limitation revised.

**CSPA –COMMENT #4.** The proposed permit grants 100 percent of the Feather River assimilative capacity for EC. Granting 100 percent of the assimilative

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capacity takes the receiving stream to the brink of being impaired. The permit relies on past sampling of the receiving stream in assessing the assimilative capacity and does not account for upstream growth from already permitted sources, such as Marysville and Oroville which will undoubtedly add EC thereby causing exceedance of the water quality objective. Allowing potential exceedance of a water quality objective with a reopening statement that the EC limitation may be reduced for the Discharger violates the above cited regulations and Federal regulation, 40 CFR 122.4, which prohibits issuance of a permit when conditions of the permit do not provide compliance with the applicable requirements of the CWA or regulations promulgated under the CWA.

**RESPONSE**

The Feather River has designated Agricultural and Municipal (AGR and MUN) beneficial uses. The EC limitations protective of agriculture and municipal beneficial uses are 700 and 900  $\mu\text{mhos/cm}$ , respectively. The Regional Water Board's *Water Quality Control Plan, Fourth Edition*, for the Sacramento and San Joaquin River Basins (hereinafter Basin Plan) requires that "electrical conductivity (at 25° C) shall not exceed 150  $\mu\text{mhos/cm}$  in well-mixed waters of the Feather River."

The proposed Order contains an EC effluent limitation of 780  $\mu\text{mhos/cm}$ . The limitation was calculated using the existing 90<sup>th</sup> percentile EC concentration in the Feather River (immediately upstream of the proposed discharge location) from existing receiving water data. The maximum permitted EC concentration and flow for the Yuba City discharge, and the maximum proposed EC concentration and flow for the proposed discharge was added to the existing EC concentration in the Feather River (including all existing upstream discharges of EC). Therefore, the proposed limitation takes in account both the design flows of the City of Yuba City and the Linda County Water District, and the existing flows of upstream dischargers.

We acknowledge that as upstream dischargers expand to their permitted maximum EC and flow limitations, there is a potential for the Feather River to exceed the EC water quality objective of 150  $\mu\text{mhos/cm}$ . The 780  $\mu\text{mhos/cm}$  EC limitation (based on the 90<sup>th</sup> percentile of the Discharger's existing EC data) is a limitation proposed to allow local growth while assessing the EC impact on the Feather River as upstream communities grow. As further monitoring information regarding upstream discharges and downstream EC impacts are obtained, and redistribution of EC allocation for discharges to the Feather River is conducted, the proposed Order may be reopened and EC limitations may be revised.

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**CSPA –COMMENT #5.** The Permit must include mass-based limitations for EC, cis-1,2-Dichloroethene, iron, manganese, methoxychlor, MBAS, organochlorine pesticides and thiobencarb.

**RESPONSE**

Federal regulations at 40 CFR 122.45(f)(1) and (2), states the following regarding effluent limitations for publicly owned treatment works:

*“(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass **except**:*  
*(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;*  
*(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or*  
*(iii) If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.*  
*(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.” (emphasis added)*

The proposed Order includes effluent limitations expressed in terms of both mass and concentration for some constituents. Pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass when the applicable standards are expressed in terms of concentration (e.g. CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Regional Water Board staff concurs that mass limitations are particularly important for control of bioconcentratable pollutants. The proposed Order includes mass limitations for persistent, bioaccumulative, toxics based on the 9 November 1998 Federal Register *Notice of Availability of Draft RCRA Waste Minimization PBT Chemical List*. Regional Water Board staff acknowledges that this document may not contain a comprehensive list, and the proposed Order states that additional constituents may require mass limitations as information becomes available.

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**CSPA –COMMENT #6.** The permit fails to contain a defensible antidegradation analysis.

**RESPONSE**

State Board Resolution No. 68-16 requires in part that:

- 1) High quality waters be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies; and
- 2) Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

The proposed Order contains effluent and receiving water limitations established to protect the Feather River's present and anticipated beneficial uses and a provision for best practicable treatment or control. Discharge Prohibition III.c of the proposed Order prohibits the wastewater treatment and discharge from causing a nuisance as defined by the California Water Code.

Limited degradation that does not cause exceedance of water quality objectives is warranted to allow for the economic benefit stemming from local growth. The increase in the discharge allows wastewater utility service necessary to accommodate housing and economic expansion in the area, and is considered to be a benefit to the people of the State.

**CSPA –COMMENT #7.** The limitation for acute toxicity is inconsistent with Basin Plan and federal requirements.

The focus of this comment is on the appropriateness of the acute toxicity effluent limitation (Effluent Limitation No. IV.A.1.f.), which states:

*"f. Acute Whole Effluent Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:*

- i. 70%, minimum for any one bioassay; and*
- ii. 90%, median for any three consecutive bioassays."*

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CSPA contends that the acute toxicity effluent limitation is inappropriate because allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to an exceedance of the Basin Plan's narrative water quality objective for toxicity.

**RESPONSE**

The acute toxicity effluent limitations are consistent with numerous NPDES permits issued by the Central Valley Regional Water Board and throughout the state and are appropriate. The proposed Order, as a whole, contains several mechanisms designed to ensure that the discharge does not cause toxicity in the receiving water. The Order contains Receiving Water Limitation V.A.7., which prescribes the discharge from causing toxicity in the receiving water. Additionally, end-of-pipe effluent limits are included for all toxic pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Where appropriate, these limits are developed based on aquatic life toxicity criteria.

In addition to chemical-specific effluent limitations, the proposed Order requires chronic whole effluent toxicity (WET) testing that identifies both acute and chronic effluent toxicity. WET testing is necessary because chemical-specific effluent limitations do not address synergistic effects that may occur when the effluent mixes with receiving waters, synergistic effects of mixtures of chemicals, or toxicity from toxic pollutants for which there are no aquatic life toxicity criteria. To address toxicity detected in WET testing, the proposed Order includes a provision that requires the City to investigate the causes of, and identify corrective actions to reduce or eliminate, effluent toxicity. If the discharge exhibits a pattern of toxicity, the City is required to initiate a Toxicity Reduction Evaluation and take actions to mitigate the impact of the discharge and prevent reoccurrence of toxicity.

The acute toxicity effluent limitations establish additional thresholds to control toxicity in the effluent: survival in one test no less than 70% and a median of no less than 90% survival in three consecutive tests. Some in-test mortality can occur by chance. To account for this, the test acceptability criteria for the acute test allow ten percent mortality (requires 90% survival) in the control. Thus, the acute toxicity effluent limitation allows for some test variability, but imposes ceilings for exceptional events (i.e. 30% mortality or more), and for repeat events (i.e., median of three events exceeding mortality of 10%).



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**CSPA –COMMENT #8.** The Order fails to contain an effluent limitation for chronic toxicity.

**RESPONSE**

The SIP contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region<sup>1</sup> that contained numeric chronic toxicity effluent limitations. As a result of this petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012:

*“In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits.”*

The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process.

The toxicity control provisions in the SIP are under revision. Therefore, the proposed Order requires that the Discharger meet best management practices for compliance with the Basin Plan’s narrative toxicity objective, as allowed under 40 C.F.R. 122.44(k). The proposed Order includes Provisions VI.C.2.a., which contains a numeric chronic toxicity monitoring trigger and explicit protocols for accelerated monitoring and toxicity reduction evaluation implementation if a pattern of effluent toxicity is observed. This provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

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<sup>1</sup> In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

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**CSPA –COMMENT #9.** The proposed Order should require more frequent sampling to assure compliance with the proposed Order's limitations and should include methyl mercury monitoring.

**RESPONSE**

The monitoring frequency required in the proposed Order is similar to other Regional Water Board-adopted Orders and attempts to balance the need for capturing effluent data with the costs to the Discharger.

CSPA contends that methyl mercury monitoring should be required in the proposed Order. The requirement to monitor total mercury is included in the proposed Order. Regional Water Board staff agrees that methyl mercury monitoring is also warranted. Therefore, the proposed Order has been revised to include effluent monitoring for methyl mercury. Additional monitoring for sulfate, as suggested by CSPA, is not warranted at this time.

**CSPA –COMMENT #10.** The Order violates state and federal endangered species acts. As discussed above, South Delta waterways are listed on the 303(d) list as impaired because of unknown toxicity and are home to species protected by state and federal endangered species acts. There is no remaining assimilative capacity for toxicity, toxic pollutants or oxygen demanding constituents. The Order allows acute toxicity, fails to limit chronic toxicity and includes effluent limits that are not protective of listed species. The Order is likely to result in the illegal "take" of listed species and will likely result in the destruction or adverse modification of critical habitat in violation of Section 9 of the federal Endangered Species Act (ESA).

**RESPONSE**

The proposed Order contains numeric effluent limitations for acute toxicity, narrative limitations for chronic toxicity, and a receiving water limitation for toxicity that states the discharge shall not cause "Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances."

For clarity purposes only, the Regional Water Board staff will propose the following late revision to be included in the Order at section III.C.9. of the Fact Sheet (Attachment F):

"This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or

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becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.”